No fee, petition, or certification is required. The Commissioner is authorized to charge any fee due, or credit any overcharge, as a result of this Amendment to Deposit Account No. 03-1935.

## IN THE CLAIMS

Kindly amend the claims as follows.

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## 1-2. (cancelled).

3. (currently amended): A process for mass colouration of a polymer, which comprises adding at least one compound of the formula (I)

$$A(B)_{x} (I)$$

where x is an integer from 1 to 8,

A is the radical of a chromophore of the quinacridone, anthraquinone, perylene, indigo, quinophthalone, indanthrone, isoindolinone, isoindoline, dioxazine, azo, phthalocyanine or diketopyrrolopyrrole series, this radical being linked with x B groups via one or more heteroatoms, these heteroatoms being selected from the group consisting of N, O and S and forming part of the radical A, and

B is hydrogen or a group of the formula

althoughwherein at least one B group is not hydrogen and when x is from 2 to 8 the B groups may be identical or different.

 $E_1$  is oxygen or is selected from the group consisting of methylene, methyleneoxy and ethylene, each member of the group being unsubstituted or substituted by one  $R_5$  or by 2 radicals,  $R_5$  and  $R_6$ , or is two separate radicals,  $R_7$  and  $R_8$ ,  $R_7$  being attached to the same atom as  $R_1$  and  $R_8$  to the same atom as  $R_4$ ,

 $E_2$  is selected from the group consisting of methylene, ethylene, propylene and butylene, each member of the group being unsubstituted or substituted by one  $R_9$  or by 2 radicals,  $R_9$  and  $R_{10}$ , or is two separate radicals,  $R_{11}$  and  $R_{12}$ ,  $R_{11}$  being attached to the same atom as  $R_1$  and  $R_{12}$  to the same atom as  $R_4$ ,

 $G_1$  is O or  $N(R_{13})$ ,

R<sub>1</sub> is hydrogen, methyl, ethyl, methoxy or ethoxy,

 $R_2$  and  $R_3$  are independently hydrogen,  $C_1$ - $C_8$ alkyl,  $C_1$ - $C_8$ alkoxy,  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkylene or  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkyleneoxy,

 $R_4$  is hydrogen,  $C_1$ - $C_8$ alkyl,  $C_1$ - $C_8$ alkoxy,  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkylene,  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkyleneoxy,  $C_5$ - $C_6$ cycloalkyl,  $C_5$ - $C_6$ cycloalkoxy, phenyl, phenoxy or a 5- or 6-membered, saturated or singly to triply unsaturated heterocyclic radical,

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 $R_{5},\,R_{6},\,R_{9},\,R_{10}$  and  $R_{12}$  are independently  $C_{1}\text{-}C_{8}alkyl$  or  $C_{1}\text{-}C_{8}alkoxy,$ 

or R<sub>6</sub> and R<sub>9</sub> together are a direct bond,

 $R_7$  and  $R_8$  are independently hydrogen,  $C_1$ - $C_8$ alkyl,  $C_1$ - $C_8$ alkoxy,  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkylene or  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkyleneoxy,

R<sub>11</sub> is hydrogen, C<sub>1</sub>-C<sub>8</sub>alkyl or C<sub>1</sub>-C<sub>8</sub>alkoxy,

R<sub>13</sub> is methyl or ethyl, and

R<sub>14</sub> is C<sub>1</sub>-C<sub>8</sub>alkyl, C<sub>5</sub>-C<sub>6</sub>cycloalkyl, phenyl or a 5- or 6-membered, saturated or singly to triply unsaturated heterocyclic radical,

it being possible for two methoxies attached to the same carbon atom to combine and form 1,2-ethylenedioxy, or for methoxy to combine with ethoxy attached to the same carbon atom to form 1,2- or 1,3-propylenedioxy, or for methoxy or ethoxy to combine with ethoxy attached to  $\alpha$ - or  $\beta$ -enchained carbon to form dimethylmethylene,

and where additionally

- a)  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_7$  or  $R_{11}$  is hydrogen, and
- b) when  $E_1$  is two separate radicals  $R_7$  and  $R_8$  and  $E_2$  is methylene or ethylene at least one of the following further conditions applies:

 $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_7$ ,  $R_8$ ,  $R_9$  or  $R_{10}$  is methoxy or ethoxy;

 $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_7$ ,  $R_8$ ,  $R_9$  or  $R_{10}$  is secondary  $C_3$ - $C_8$ alkyl or tertiary  $C_4$ - $C_8$ alkyl or  $C_3$ - $C_8$ alkoxy;

 $R_2$ ,  $R_3$ ,  $R_7$  or  $R_8$  is  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkylene or  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkyleneoxy;

or

 $R_4$  is  $C_5$ - $C_6$ cycloalkyl,  $C_5$ - $C_6$ cycloalkoxy, phenyl, phenoxy or a 5- or 6-membered heterocyclic radical to the polymer before or during processing, the processing taking the form of extrusion, injection moulding or fibre spinning at 220 to 330°C.

- 4. (currently amended): an engineering plastic having a glass transition point (T<sub>g</sub>) of 220 to 330°C, preferablywherein the plastic is polyolefin, polyester, polyamide or a polyimide, polysulfone, polyether sulfone, polyphenylene oxide, polyarylene sulfide, polyepoxide, polyphenylene oxide or ABS, pigmented according to claim 3.
- 5. (original): An engineering plastic according to claim 4 in the form of a fibre.
- 6. (currently amended): A process for pigmenting a porous material, which comprises at least one compound of the formula (I)

 $A(B)_x$ 

(l)

where x is an integer from 1 to 8,

A is the radical of a chromophore of the quinacridone, anthraquinone, perylene, indigo, quinophthalone, indanthrone, isoindoline, isoindoline, dioxazine, azo, phthalocyanine or diketopyrrolopyrrole series, this radical being linked with x B groups via one or more heteroatoms, these heteroatoms being selected from the group consisting of N, O and S and forming part of the radical A, and

B is hydrogen or a group of the formula

although wherein at least one B group is not hydrogen and when x is from 2 to 8 the B groups may be identical or different,

 $E_1$  is oxygen or is selected from the group consisting of methylene, methyleneoxy and ethylene, each member of the group being unsubstituted or substituted by one  $R_5$  or by 2 radicals,  $R_5$  and  $R_6$ , or is two separate radicals,  $R_7$  and  $R_8$ ,  $R_7$  being attached to the same atom as  $R_1$  and  $R_8$  to the same atom as  $R_4$ ,

 $E_2$  is selected from the group consisting of methylene, ethylene, propylene and butylene, each member of the group being unsubstituted or substituted by one  $R_9$  or by 2 radicals,  $R_9$  and  $R_{10}$ , or is two separate radicals,  $R_{11}$  and  $R_{12}$ ,  $R_{11}$  being attached to the same atom as  $R_1$  and  $R_{12}$  to the same atom as  $R_4$ ,

 $G_1$  is O or  $N(R_{13})$ ,

R<sub>1</sub> is hydrogen, methyl, ethyl, methoxy or ethoxy,

 $R_2$  and  $R_3$  are independently hydrogen,  $C_1$ - $C_8$ alkyl,  $C_1$ - $C_8$ alkoxy,  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkylene or  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkyleneoxy,

 $R_4$  is hydrogen,  $C_1$ - $C_8$ alkyl,  $C_1$ - $C_8$ alkoxy,  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkylene,  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkyleneoxy,  $C_5$ - $C_6$ cycloalkyl,  $C_5$ - $C_6$ cycloalkoxy, phenyl, phenoxy or a 5- or 6-membered, saturated or singly to triply unsaturated heterocyclic radical,

 $R_5$ ,  $R_6$ ,  $R_9$ ,  $R_{10}$  and  $R_{12}$  are independently  $C_1$ - $C_8$ alkyl or  $C_1$ - $C_8$ alkoxy,

or R<sub>6</sub> and R<sub>9</sub> together are a direct bond,

 $R_7$  and  $R_8$  are independently hydrogen,  $C_1$ - $C_8$ alkyl,  $C_1$ - $C_8$ alkoxy,  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkylene or  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkyleneoxy,

 $R_{11}$  is hydrogen,  $C_1$ - $C_8$ alkyl or  $C_1$ - $C_8$ alkoxy,

R<sub>13</sub> is methyl or ethyl, and

 $R_{14}$  is  $C_1$ - $C_8$ alkyl,  $C_5$ - $C_6$ cycloalkyl, phenyl or a 5- or 6-membered, saturated or singly to triply unsaturated heterocyclic radical,

it being possible for two methoxies attached to the same carbon atom to combine and form 1,2-ethylenedioxy, or for methoxy to combine with ethoxy attached to the same carbon atom to form 1,2- or 1,3-propylenedioxy, or for methoxy or ethoxy to combine with ethoxy attached to  $\alpha$ - or

β-enchained carbon to form dimethylmethylene,

and where additionally

- a)  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_7$  or  $R_{11}$  is hydrogen, and
- b) when  $E_1$  is two separate radicals  $R_7$  and  $R_8$  and  $E_2$  is methylene or ethylene at least one of the following further conditions applies:

 $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_7$ ,  $R_8$ ,  $R_9$  or  $R_{10}$  is methoxy or ethoxy;

 $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_7$ ,  $R_8$ ,  $R_9$  or  $R_{10}$  is secondary  $C_3$ - $C_8$ alkyl or tertiary  $C_4$ - $C_8$ alkyl or  $C_3$ - $C_8$ alkoxy;

 $R_2$ ,  $R_3$ ,  $R_7$  or  $R_8$  is  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkylene or  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkyleneoxy;

or

R<sub>4</sub> is C<sub>5</sub>-C<sub>6</sub>cycloalkyl, C<sub>5</sub>-C<sub>6</sub>cycloalkoxy, phenyl, phenoxy or a 5- or 6-membered heterocyclic radical, in liquid form or dissolved in an inert liquid in a weight concentration of at least 25%, penetrating into the pores of the porous material and thereafter being thermally converted into a pigment of the formula

 $A(H)_x$  (VI)

wherein A and x have the same meaning as in formula (I).

- 7. (original): Material pigmented according to claim 6, selected from anodized aluminium and sintered boridic material.
- 8. (currently amended): High molecular weight organic material having a glass transition point ( $T_g$ ) of 140°C to 220°C and containing in its bulk 0.1 to 10% by weight of a compound of the formula (I) A(B)<sub>x</sub> (I)

where x is an integer from 1 to 8,

A is the radical of a chromophore of the quinacridone, anthraquinone, perylene, indigo, quinophthalone, indanthrone, isoindolinone, isoindoline, dioxazine, azo, phthalocyanine or diketopyrrolopyrrole series, this radical being linked with x B groups via one or more heteroatoms,

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these heteroatoms being selected from the group consisting of N, O and S and forming part of the radical A, and

B is hydrogen or a group of the formula

althoughwherein at least one B group is not hydrogen and when x is from 2 to 8 the B groups may be identical or different,

 $E_1$  is oxygen or is selected from the group consisting of methylene, methyleneoxy and ethylene, each member of the group being unsubstituted or substituted by one  $R_5$  or by 2 radicals,  $R_5$  and  $R_6$ , or is two separate radicals,  $R_7$  and  $R_8$ ,  $R_7$  being attached to the same atom as  $R_1$  and  $R_8$  to the same atom as  $R_4$ .

 $E_2$  is selected from the group consisting of methylene, ethylene, propylene and butylene, each member of the group being unsubstituted or substituted by one  $R_9$  or by 2 radicals,  $R_9$  and  $R_{10}$ , or is two separate radicals,  $R_{11}$  and  $R_{12}$ ,  $R_{11}$  being attached to the same atom as  $R_1$  and  $R_{12}$  to the same atom as  $R_4$ .

 $G_1$  is O or  $N(R_{13})$ ,

R<sub>1</sub> is hydrogen, methyl, ethyl, methoxy or ethoxy,

 $R_2$  and  $R_3$  are independently hydrogen,  $C_1$ - $C_8$ alkyl,  $C_1$ - $C_8$ alkoxy,  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkylene or  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkyleneoxy,

 $R_4$  is hydrogen,  $C_1$ - $C_8$ alkyl,  $C_1$ - $C_8$ alkoxy,  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkylene,  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkyleneoxy,  $C_5$ - $C_6$ cycloalkyl,  $C_5$ - $C_6$ cycloalkoxy, phenyl, phenoxy or a 5- or 6-membered, saturated or singly to triply unsaturated heterocyclic radical,

 $R_5$ ,  $R_6$ ,  $R_9$ ,  $R_{10}$  and  $R_{12}$  are independently  $C_1$ - $C_8$ alkyl or  $C_1$ - $C_8$ alkoxy,

or R<sub>6</sub> and R<sub>9</sub> together are a direct bond,

 $R_7$  and  $R_8$  are independently hydrogen,  $C_1$ - $C_8$ alkyl,  $C_1$ - $C_8$ alkoxy,  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkyleneoxy,  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkyleneoxy,

R<sub>11</sub> is hydrogen, C<sub>1</sub>-C<sub>8</sub>alkyl or C<sub>1</sub>-C<sub>8</sub>alkoxy,

R<sub>13</sub> is methyl or ethyl, and

R<sub>14</sub> is C<sub>1</sub>-C<sub>8</sub>alkyl, C<sub>5</sub>-C<sub>6</sub>cycloalkyl, phenyl or a 5- or 6-membered, saturated or singly to triply unsaturated heterocyclic radical,

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it being possible for two methoxies attached to the same carbon atom to combine and form 1,2-ethylenedioxy, or for methoxy to combine with ethoxy attached to the same carbon atom to form 1,2- or 1,3-propylenedioxy, or for methoxy or ethoxy to combine with ethoxy attached to  $\alpha$ - or  $\beta$ -enchained carbon to form dimethylmethylene, and where additionally

- a)  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_7$  or  $R_{11}$  is hydrogen, and
- b) when  $E_1$  is two separate radicals  $R_7$  and  $R_8$  and  $E_2$  is methylene or ethylene at least one of the following further conditions applies:

 $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_7$ ,  $R_8$ ,  $R_9$  or  $R_{10}$  is methoxy or ethoxy;

R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub> or R<sub>10</sub> is secondary C<sub>3</sub>-C<sub>8</sub>alkyl or tertiary C<sub>4</sub>-C<sub>8</sub>alkyl or C<sub>3</sub>-C<sub>8</sub>alkoxy;

 $R_2$ ,  $R_3$ ,  $R_7$  or  $R_8$  is  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkylene or  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkyleneoxy;

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 $R_4$  is  $C_5$ - $C_6$ cycloalkyl,  $C_5$ - $C_6$ cycloalkoxy, phenyl, phenoxy or a 5- or 6-membered heterocyclic radical, based on the total weight.

9. (currently amended): A thermochromic material comprising a polymer coloured in the mass by a product obtainable by partial thermal decomposition of a compound of the formula (I)

$$A(B)_{x} (I)$$

where x is an integer from 1 to 8,

A is the radical of a chromophore of the quinacridone, anthraquinone, perylene, indigo, quinophthalone, indanthrone, isoindolinone, isoindoline, dioxazine, azo, phthalocyanine or diketopyrrolopyrrole series, this radical being linked with x B groups via one or more heteroatoms, these heteroatoms being selected from the group consisting of N, O and S and forming part of the radical A, and

B is hydrogen or a group of the formula

althoughwherein at least one B group is not hydrogen and when x is from 2 to 8 the B groups may be identical or different.

 $E_1$  is oxygen or is selected from the group consisting of methylene, methyleneoxy and ethylene, each member of the group being unsubstituted or substituted by one  $R_5$  or by 2 radicals,  $R_5$  and  $R_6$ , or

is two separate radicals,  $R_7$  and  $R_8$ ,  $R_7$  being attached to the same atom as  $R_1$  and  $R_8$  to the same atom as  $R_4$ ,

is selected from the group consisting of methylene, ethylene, propylene and butylene, each member of the group being unsubstituted or substituted by one  $R_9$  or by 2 radicals,  $R_9$  and  $R_{10}$ , or is two separate radicals,  $R_{11}$  and  $R_{12}$ ,  $R_{11}$  being attached to the same atom as  $R_1$  and  $R_{12}$  to the same atom as  $R_4$ ,

 $G_1$  is O or  $N(R_{13})$ ,

R<sub>1</sub> is hydrogen, methyl, ethyl, methoxy or ethoxy,

 $R_2$  and  $R_3$  are independently hydrogen,  $C_1$ - $C_8$ alkyl,  $C_1$ - $C_8$ alkoxy,  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkylene or  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkyleneoxy,

 $R_4$  is hydrogen,  $C_1$ - $C_8$ alkyl,  $C_1$ - $C_8$ alkoxy,  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkylene,  $C_1$ - $C_8$ alkyleneoxy,  $C_5$ - $C_6$ cycloalkyl,  $C_5$ - $C_6$ cycloalkoxy, phenyl, phenoxy or a 5- or 6-membered, saturated or singly to triply unsaturated heterocyclic radical,

 $R_5$ ,  $R_6$ ,  $R_9$ ,  $R_{10}$  and  $R_{12}$  are independently  $C_1$ - $C_8$ alkyl or  $C_1$ - $C_8$ alkoxy,

or R<sub>6</sub> and R<sub>9</sub> together are a direct bond,

 $R_7$  and  $R_8$  are independently hydrogen,  $C_1$ - $C_8$ alkyl,  $C_1$ - $C_8$ alkoxy,  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkylene or  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkyleneoxy,

R<sub>11</sub> is hydrogen, C<sub>1</sub>-C<sub>8</sub>alkyl or C<sub>1</sub>-C<sub>8</sub>alkoxy,

R<sub>13</sub> is methyl or ethyl, and

 $R_{14}$  is  $C_1$ - $C_8$ alkyl,  $C_5$ - $C_6$ cycloalkyl, phenyl or a 5- or 6-membered, saturated or singly to triply unsaturated heterocyclic radical,

it being possible for two methoxies attached to the same carbon atom to combine and form

1,2-ethylenedioxy, or for methoxy to combine with ethoxy attached to the same carbon atom to form

1,2- or 1,3-propylenedioxy, or for methoxy or ethoxy to combine with ethoxy attached to  $\alpha$ - or  $\beta$ -enchained carbon to form dimethylmethylene,

and where additionally

- a)  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_7$  or  $R_{11}$  is hydrogen, and
- b) when  $E_1$  is two separate radicals  $R_7$  and  $R_8$  and  $E_2$  is methylene or ethylene at least one of the following further conditions applies:

 $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_7$ ,  $R_8$ ,  $R_9$  or  $R_{10}$  is methoxy or ethoxy;

R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub> or R<sub>10</sub> is secondary C<sub>3</sub>-C<sub>8</sub>alkyl or tertiary C<sub>4</sub>-C<sub>8</sub>alkyl or C<sub>3</sub>-C<sub>8</sub>alkoxy;

 $R_2$ ,  $R_3$ ,  $R_7$  or  $R_8$  is  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkylene or  $C_1$ - $C_8$ alkoxy- $C_2$ - $C_8$ alkyleneoxy;

or

R<sub>4</sub> is C<sub>5</sub>-C<sub>6</sub>cycloalkyl, C<sub>5</sub>-C<sub>6</sub>cycloalkoxy, phenyl, phenoxy or a 5- or 6-membered heterocyclic radical

or by two compounds, selected from the group consisting of compounds of the formula (I) and pigments of the formula

 $A(H)_x$  (VI)

wherein A and x have the same meaning as in formula I.

10.(currently amended): A thermochromic material according to claim 9, which is <del>comprised within a composite, preferably</del> within a security item.

11-31 (cancelled).

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32. (new): A process according to claim 6 for pigmenting a porous material wherein formula (I) comprises a binary or ternary mixture including 60 to 99.9% by weight of a compound of the formula (I) and 0.1 to 40% by weight of one or two thermally more labile compounds of the same chromophore class with an A' that differs from A.

33. (new): A process according to claim 32 wherein the thermally more labile compound of the same chromophore class with an A' that differs from A is a compound of the formula

$$A' = \begin{bmatrix} O \\ O - R_{17} \end{bmatrix}_{X'}$$
 (VII),

where x' is an integer from 1 to 8 and A' is the radical of a chromophore of the quinacridone, anthraquinone, perylene, indigo, quinophthalone, indanthrone, isoindolinone, isoindoline, dioxazine, azo, phthalocyanine or diketopyrrolopyrrole series, this radical being linked with x'-COOR<sub>17</sub> groups via one or more heteroatoms, these heteroatoms being selected from the group consisting of N, O and S and forming part of the radical A' and R<sub>17</sub> being a tertiary organic group.

34. (new): A process according to claim 6 for pigmenting a porous material wherein formula (I) is a mixture according to claim 32, which is a binary mixture of 99.5 to 95% by weight of a compound of the formula (I) and 0.5 to 5% by weight of a thermally more labile compound of the same chromophore class with an A' that differs from A.

35. (new): A process according to claim 33 for pigmenting a porous material, wherein said R<sub>17</sub> radicals are selected from the group consisting of tert-butyl, tert-amyl, 2-methyl-3-buten-2-yl, 2-methyl-3-butyn-2-yl, 4-oxa-2-pentyl and 4,7-dioxa-1-methyl-2-octyl.